

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000033858

Project ID: 12-09-202

Location: Intersection of US 64 at SR 1632 (McClain Rd)

County: Alexander

City: Hiddenite

Division: 12

Signal ID: 12-1775

Countermeasures: Install actuated flasher and signs warning the side streets with “Watch for Approaching Vehicle” signs as well as both approaches on US 64 with “Vehicle Entering” signs

Project Completion: January 27, 2011

Project Cost: \$45,000

## Map and Aerial (from Google Maps - Coordinates are 35.88712, -81.081067)



### **Naive Before and After Analysis**

Before Period: November 1, 2006 through October 31, 2010 (4 years)

Const. Period: November 1, 2010 through January 31, 2011

After Period: February 1, 2011 through January 31, 2015 (4 years)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the US 64 and SR 1632 approaches.

Target Crashes: Frontal Impact Crashes (left-turn, same roadway; left-turn, different roadway; right-turn, same roadway; right-turn, different roadway; head-on; and angle crashes) in the intersection.

<b><u>Treatment Information</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	8	6	- 25.0 %
Total Severity Index	25.50	4.70	- 81.6 %
Target Crashes	8	5	- 37.5 %
Target Crash Severity Index	25.50	5.44	- 78.6 %
Volume (2008, 2013)	9,300	7,000	- 24.7 %

<b><u>Injury Crash Summary</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	2	0	- 100.0 %
Class B injury Crashes	0	1	+ 100.0 %
Class C Injury Crashes	6	2	- 66.7 %
Property Damage Only	0	3	+ 300.0 %

<b><u>Additional Information</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Angle Crashes (Target)	8	5	- 37.5 %

### **Overall Summary Results**

Total Crashes:	- 25 %	(reduction)
Total Crash Severity:	- 82 %	(reduction)
Target Crashes:	- 38 %	(reduction)
Target Crash Severity:	- 79 %	(reduction)
Volume:	- 24 %	(reduction)

### **Additional Summary Results**

Angle Crashes (Target):	- 38 %	(reduction)
-------------------------	--------	-------------

### **Items for Discussion/Concerns**

The crash severity index for target and overall crashes were reduced in the after period by 79% and 82%, respectively. Additionally, angle crashes were reduced from 8 crashes in the before period to 5 crashes in the after period. All of the angle crashes in the after period were at the level of Injury B and below.

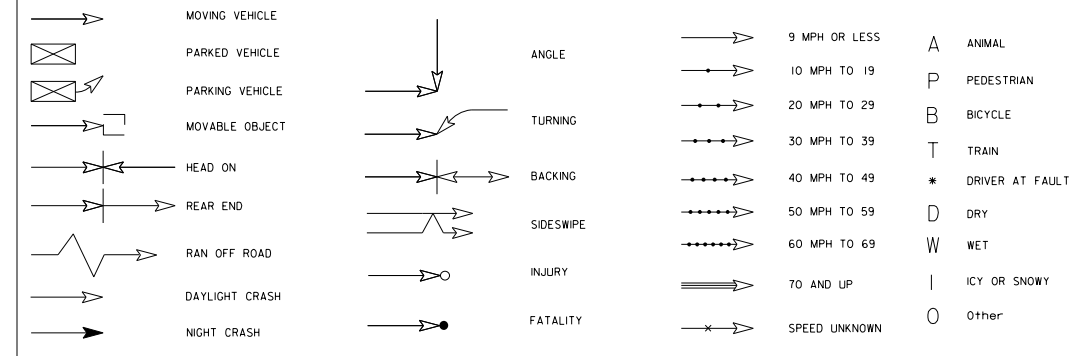
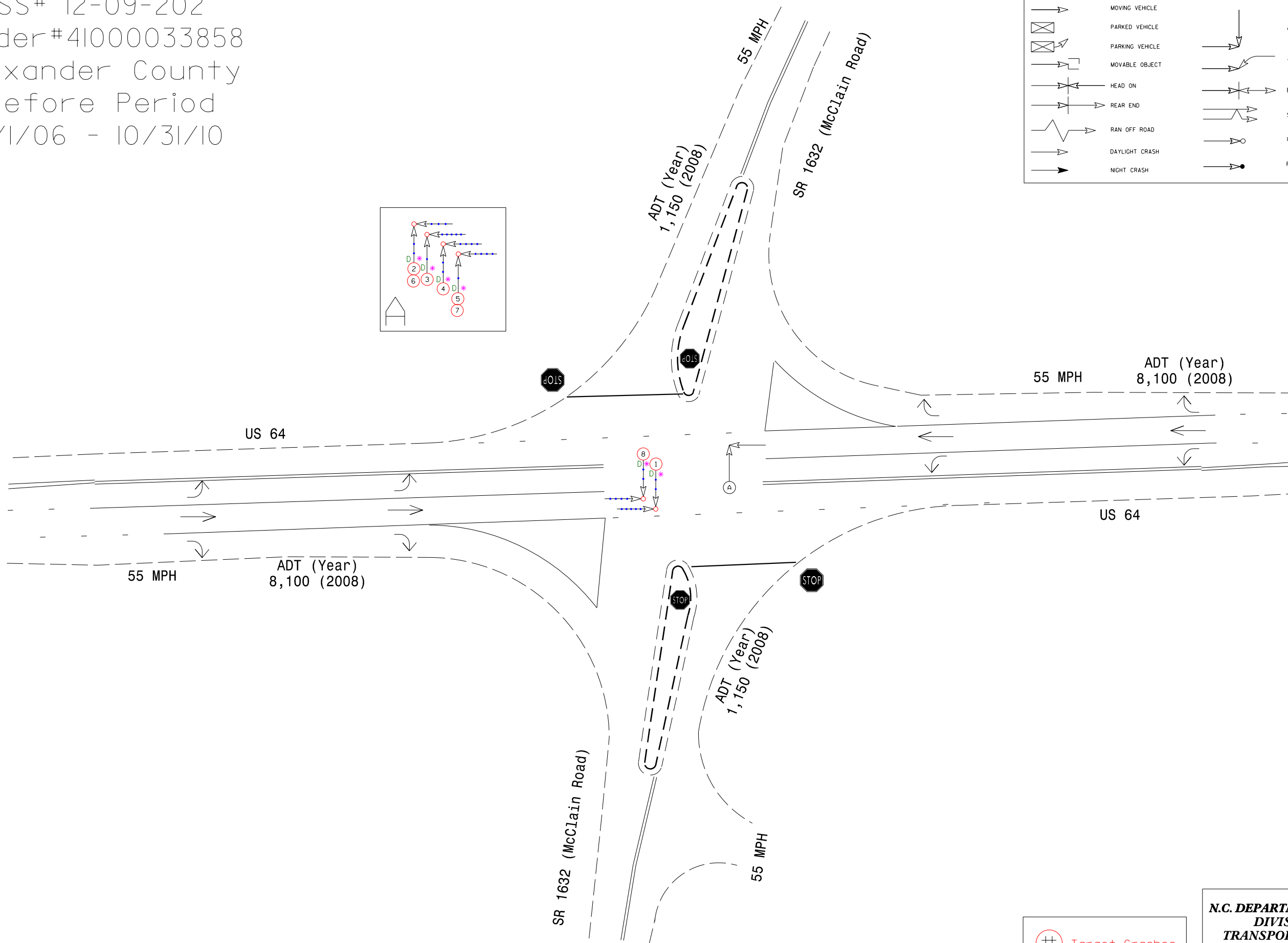
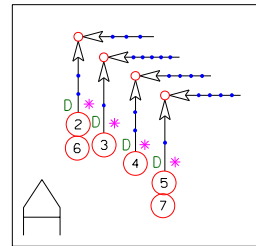
### **Data Prepared For**

The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

### **Data Prepared By**

Principal Investigator: Elizabeth Scott, EI  
Work Group/Consultant: Stantec Consulting Services Inc  
Date: March13, 2015

SS# 12-09-202  
Order#41000033858  
Alexander County  
Before Period  
11/1/06 - 10/31/10



**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and**  
**SAFETY DIVISION**

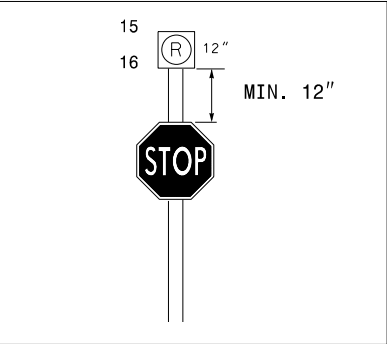
**Date:** 3/12/2015

*Prepared By: ESS*

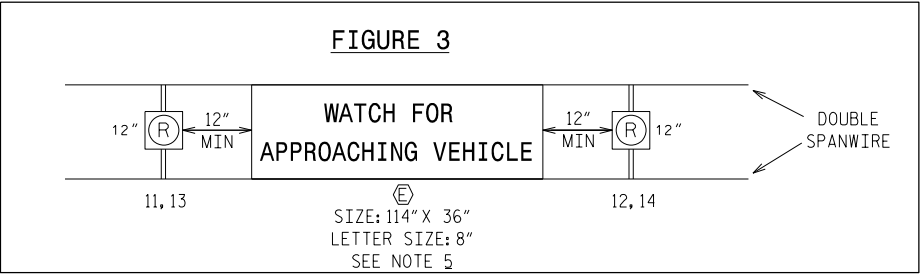
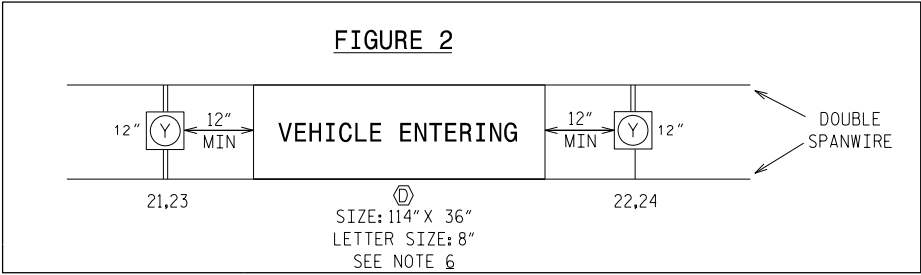
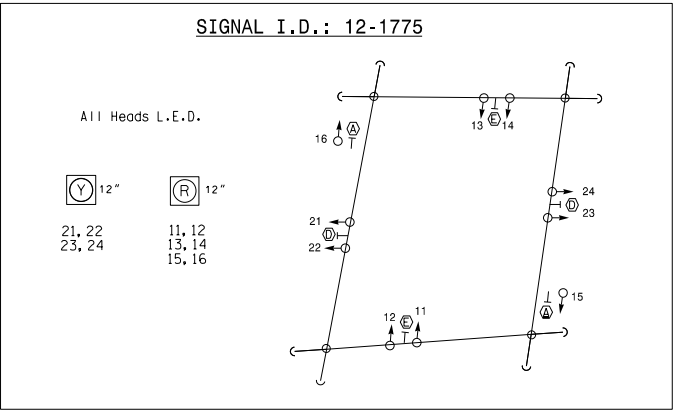
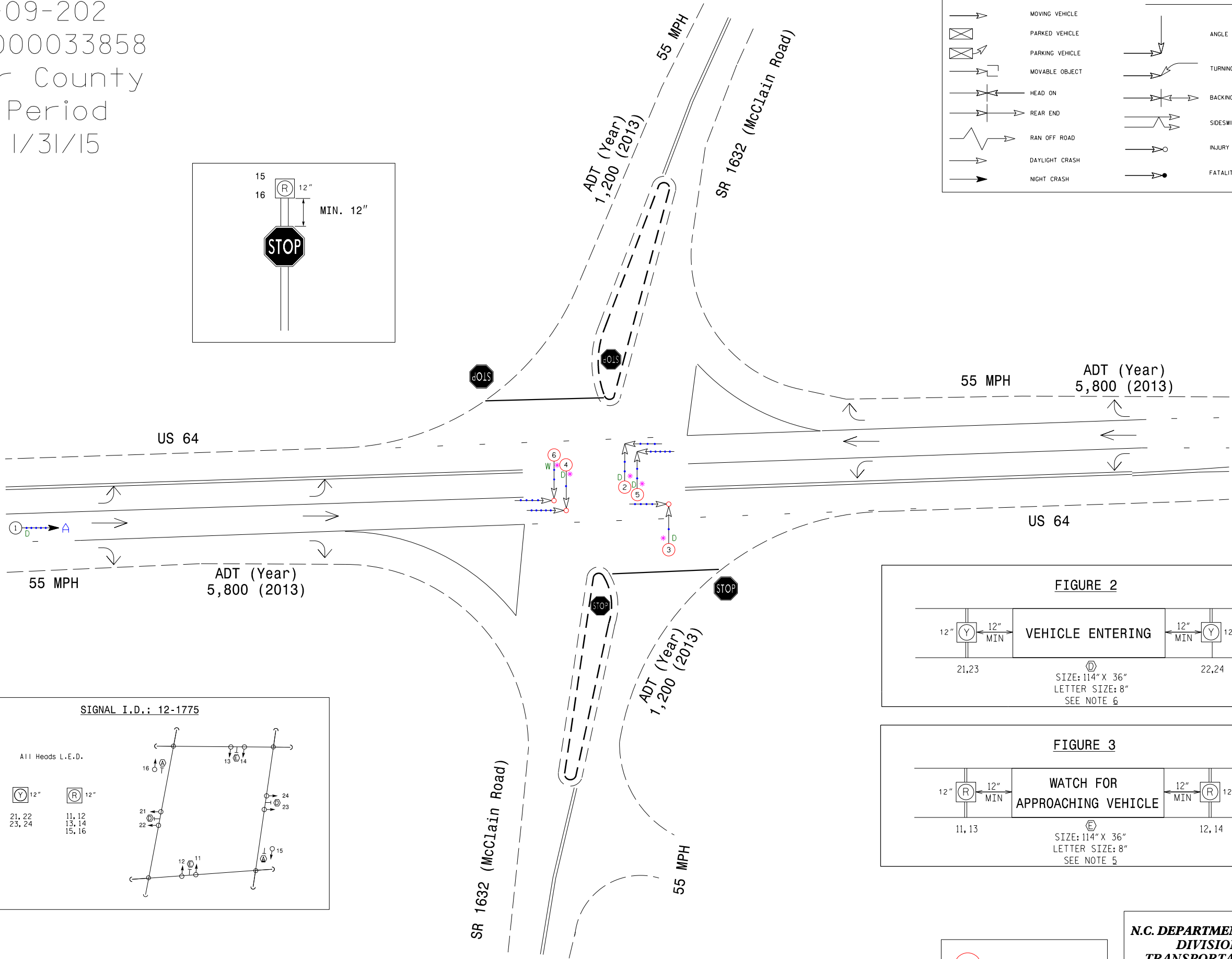
**Stantec**

**Stantec Consulting Services Inc.**  
801 Jones Franklin Road  
Suite 300  
Raleigh, NC 27606  
Tel. (919) 851-6866  
Fax. (919) 851-7024  
[www.stantec.com](http://www.stantec.com)  
License No. F-0672

SS# 12-09-202  
Order#41000033858  
Alexander County  
After Period  
2/1/11 - 1/31/15



LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
	RAN OFF ROAD		9 MPH OR LESS
	DAYLIGHT CRASH		10 MPH TO 19
	NIGHT CRASH		20 MPH TO 29
			30 MPH TO 39
			40 MPH TO 49
			50 MPH TO 59
			60 MPH TO 69
			70 AND UP
			SPEED UNKNOWN
			A ANIMAL
			P PEDESTRIAN
			B BICYCLE
			T TRAIN
			* DRIVER AT FAULT
			D DRY
			W WET
			I ICY OR SNOWY
			O Other



N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
TRANSPORTATION MOBILITY and  
SAFETY DIVISION

Date: 3/1/2015

Prepared By: ESS



Stantec Consulting Services Inc.  
801 Jones Franklin Road  
Suite 300  
Raleigh, NC 27606  
Tel. (919) 851-6866  
Fax. (919) 851-7024  
www.stantec.com  
License No. F-0672